the minds of the people early in the history of the colony. Iron was discovered by the Raleigh expeditions, and was reported as being in large quantities and of fine quality. Harriot, the friend of Raleigh and the historian of his expeditions, speaking of the discovery of iron near Roanoke Island, said:

"We found near the water side the ground to be rocky and which was found to hold iron richly. I know nothing to the contrary but that it may be allowed for a good mercantile commodity considering the small charges for the labor and the feeding of men, the infinite store of wood, the waste of wood and the dearness thereof in England and the necessity of ballasting of ships."

On account of these considerations Mr. Harriot evidently thought that such iron might be mined to good advantage and great profit.

When Newport returned in 1608 to England, he carried some iron ore with his cargo. The ore was smelted and seventeen tons of it were sold at £4 per ton to the East India Company. This was doubtless the first iron ever manufactured from American ore. There is an utter absence of proof that the aborigines knew anything at all of the manufacturing of iron. Their implements and vessels were invariably made of stone, and not of iron. There was, to a small extent, a knowledge of the use of copper, but there is no evidence that they appreciated the value of iron or had learned to use it.

In 1610 Sir Thomas Gates told the Council in London that there were divers metals, especially iron ore, in Virginia, lying upon the surface of the ground, some of which had been sent home and found to yield as good iron as any in England.

In 1617 the Virginia Company sent over iron workers, with instructions to set up three iron works at some desirable points in the colony. The enterprise was undertaken in that same year and was located at Falling Creek, a tributary of the James River, seven miles below Richmond.

Mr. Beverly, in his "History of Virginia," alludes to these works in the following way:

"The works were set up where they made proof of good iron ore and brought the whole work so near perfection that they sent word to the company in London that they did not doubt but to finish the work and have plentiful provision of iron for them by the next Easter in the spring of 1621." Unfortunately the three men who had been sent over by the London Company, and who had been intrusted with the construction of the works and the management of them, died, and as there were no other men competent to take their places, the works were in disuse.

In July, 1621, the company sent over Mr. John Berkeley to take charge of the works. Mr. Berkeley was accompanied by his son and by twenty laborers, skilled and experienced in iron work. They had not been long in the country before the following communication was received from the London Company, directed to the Council in Virginia:

"We pray your assistance in the perfecting of these two works. The profit will redound to the whole colony, and therefore it is necessary that you extend your authority to the utmost limits to enforce such as shall refuse the help to a business so much to the general good."

On the 5th of December, 1621, there was another communication, "urging all possible diligence and industrious effort to further and accomplish those great and many designs of salt, sawing mills and iron." In 1622 there was this further communication: "The good entrance which we have understood you have made in the iron works and in other stable commodities, let us have at least by the next return some good quantity of iron and wine."

But the next tidings that go to the London Company are the tidings of the terrible massacre and the destruction of the property at Falling Creek, and of the death at the hands of the Indians of every man associated with the works. These works were never rebuilt.

In 1724, on the Horse Shoe Peninsula, on the Rapidan, Governor Spotswood built a town, calling it Germanna. Here he built his own home, surrounding it with houses for workmen, with whom he expected to operate furnaces for the making of iron. Finding in this neighborhood an abundance of iron ore, he formed a partnership with Mr. Robert Cary for the mining of ore and the manufacture of iron.

Colonel Byrd has in his letters a most charming account of his visit to these mines and to the home of Governor Spotswood. It was in an interview on this visit that Governor Spotswood was styled by Colonel Byrd as "the Tubal Cain of Virginia. As the first worker in iron upon anything like a large scale, he is justly entitled to this name. In this interview Governor Spotswood expressed the hope that his adventure in mining and manufacturing of iron would be considered by the Virginia people a good example to follow, saying that "the four furnaces now at work in Virginia circulate a great deal of money for provisions and all other necessities. They took off a great number of hands from planting tobacco and provided a work that produced large sums of money in

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England to the persons concerned whereby the country is so much the richer; that they are providing a great advantage to Great Britain because it lessens the quantity of iron ore imported from Spain, Holland, Denmark, Sweden and Muscovy, which used to be no less than twenty thousand tons a year, though at the same time no sow-iron was imported."

It was soon discovered that the soil of Virginia would produce a good quality of flax. It seemed to the settlers also that in the water flag, a prolific plant in that section, they had found a fibre which would prove as satisfactory as the fibre of flax. This plant, when boiled, yielded a fibre that, for strength and length, seemed quite as good as the fibre of the flax plant. Some of this fibre was shipped to England, and is said to have proved to be of excellent quality. It seemed not unlikely that the new colony would be able to furnish flax and linen sufficient to meet the demands of the mother country. In spite, however, of the certainty that flax could be made a profitable crop, it was cultivated only after a desultory fashion. The General Assembly, in 1646, became interested in the growth of flax and the manufacture of linen, and authorized the construction of two houses in Jamestown, which were to be used for the manufacturing of linen. Two children were to be secured from each county and brought to this home, where they were to be instructed in the art of manufacturing linen. Every possible precaution was taken that the children procured under this enactment should be carefully and adequately provided for in all matters of food, apparel and shelter. It remained, however, for Captain Matthews, who lived on the lower James, to furnish an example of what might be done in the growth of flax and the manufacture of linen. He had a number of servants and slaves who were spinners of flax. In 1687 Colonel Fitzhugh congratulated him in a letter upon the success he had achieved in this enterprise. He also commends him as an example to the other planters of the colony.

When Lord Culpeper was made Governor in 1682, he undertook in a more elaborate way than had ever been done, to encourage the manufacture of linen and to regulate many matters incident thereto. It was sought by legislation to compel every tithable to produce at least two pounds of flax and one pound of hemp, or two pounds of hemp and one pound of flax. As a further inducement it was provided that there should be paid out of the public levy two pounds of tobacco for every pound of flax or hemp grown, and six pounds of tobacco for every ell of linen cloth. There were to be certificates accompanying all claims before this reward could be received. This statute did not remain in operation more than three years, and was repealed in 1685. The dissatisfaction with the enactment seems to have grown out of the heavy burden it imposed in the matter of the tobacco rewards. It was argued further that the people had made sufficient progress